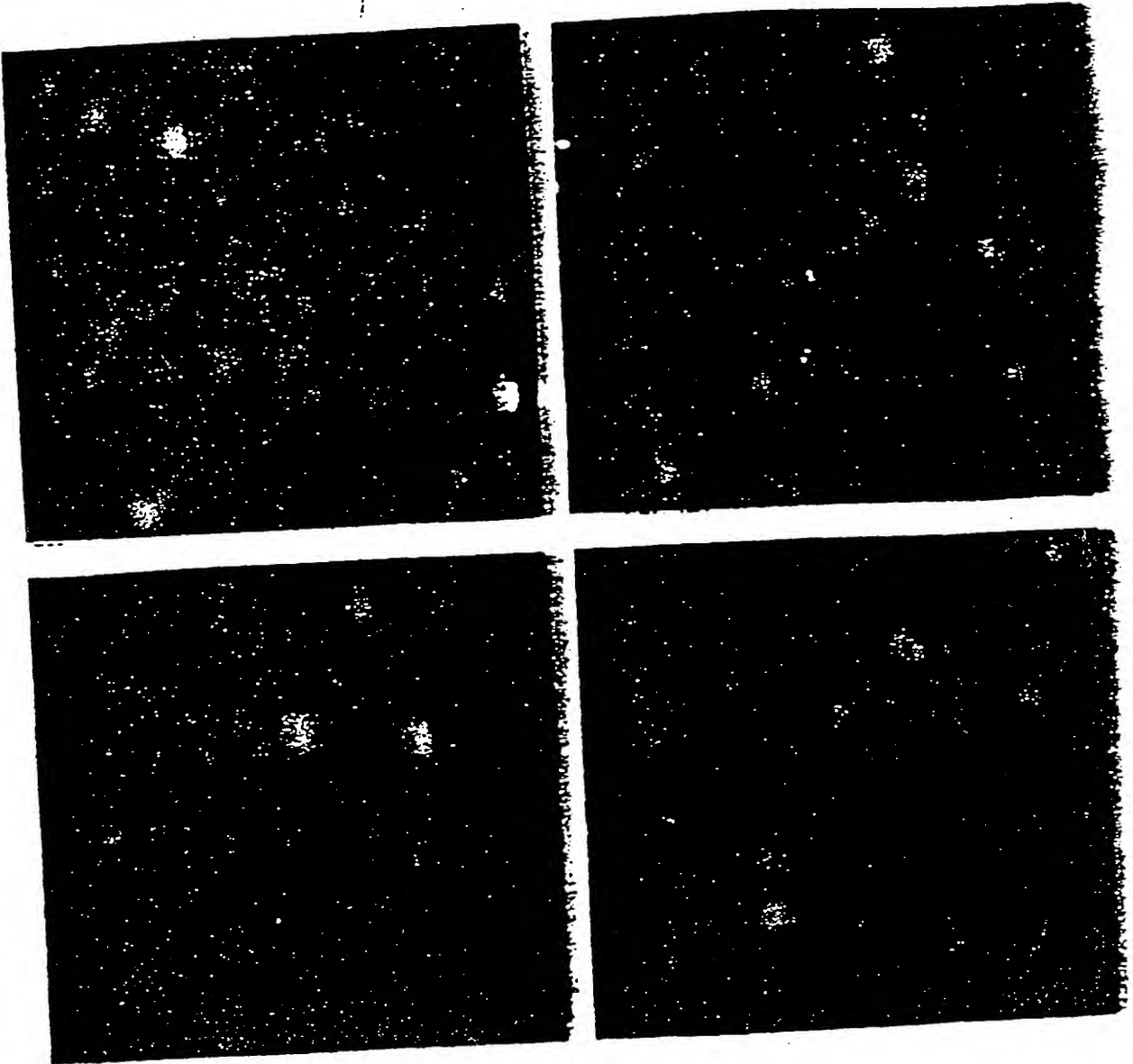


Figure 1

09927150.080501



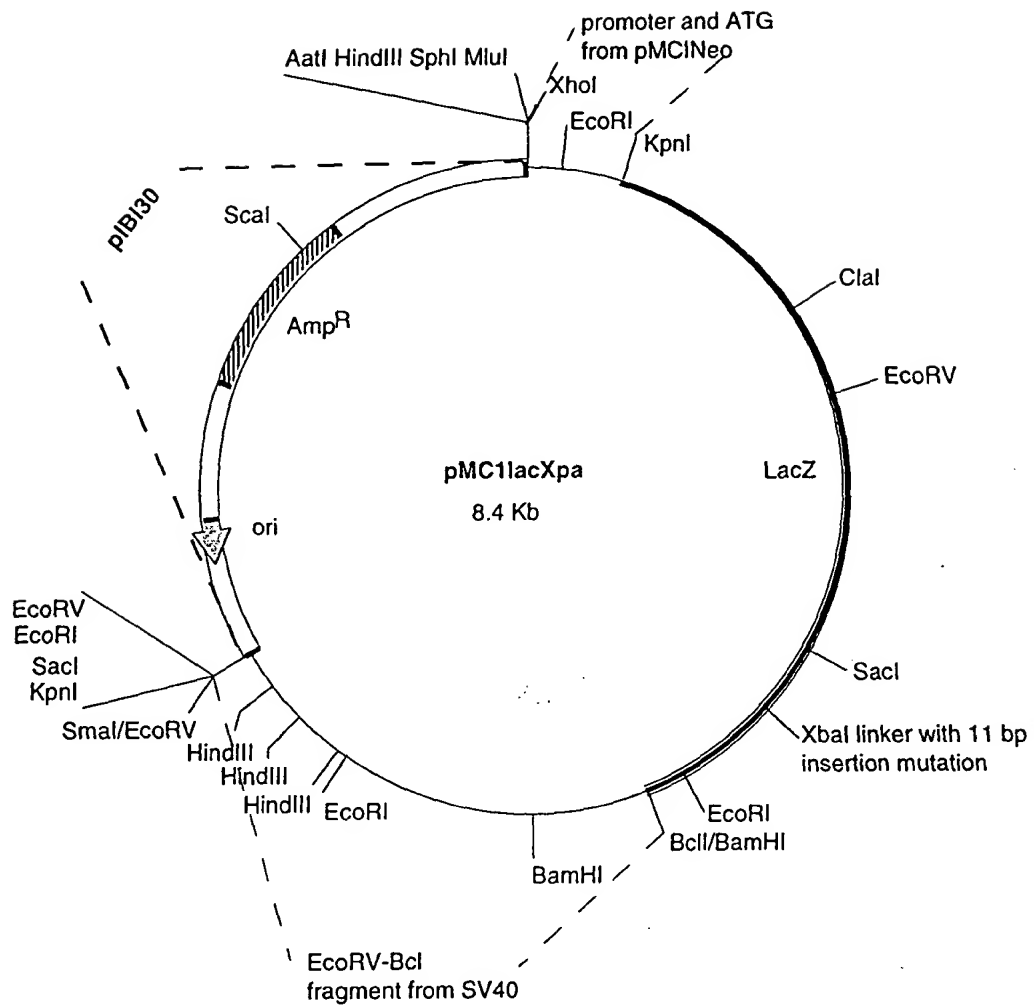


FIGURE 3

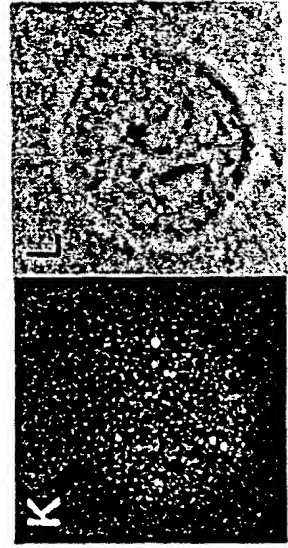
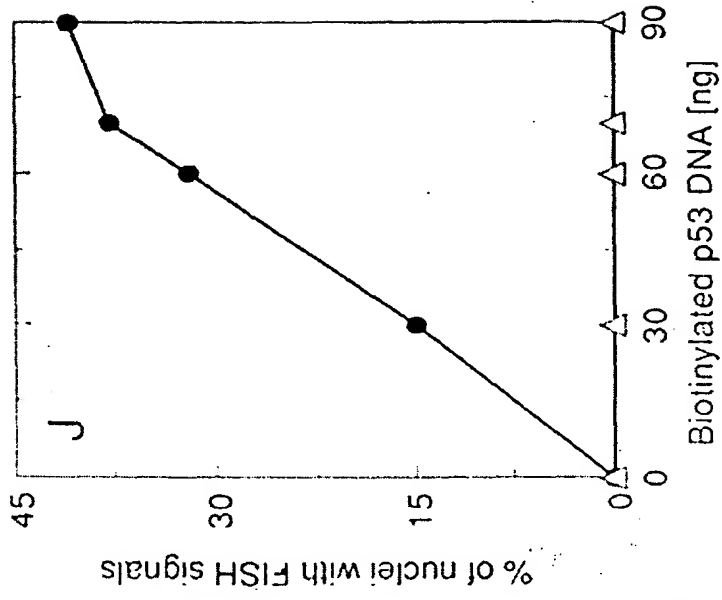
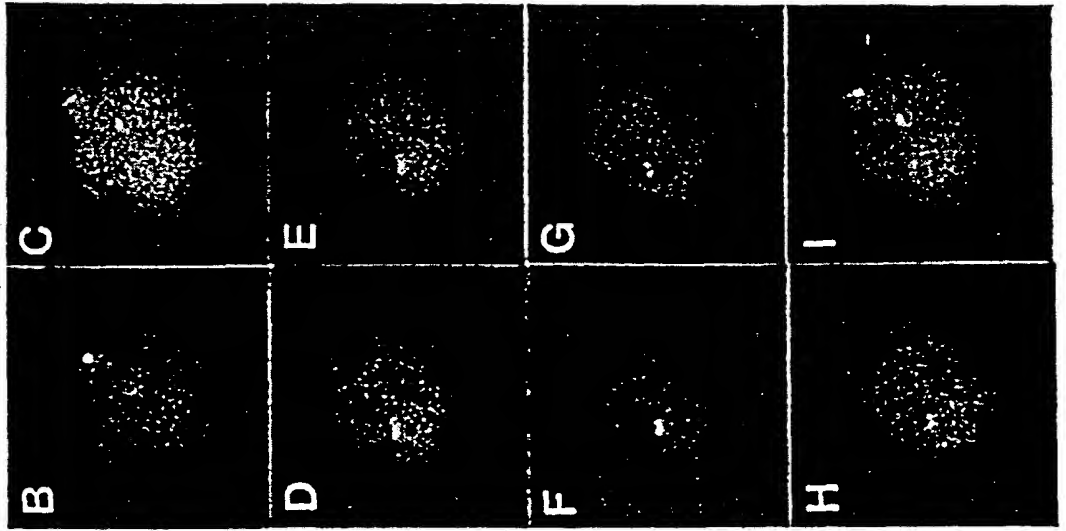
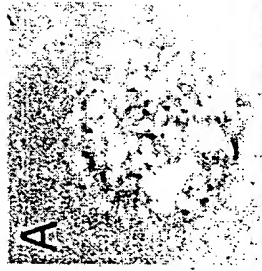


Figure 2

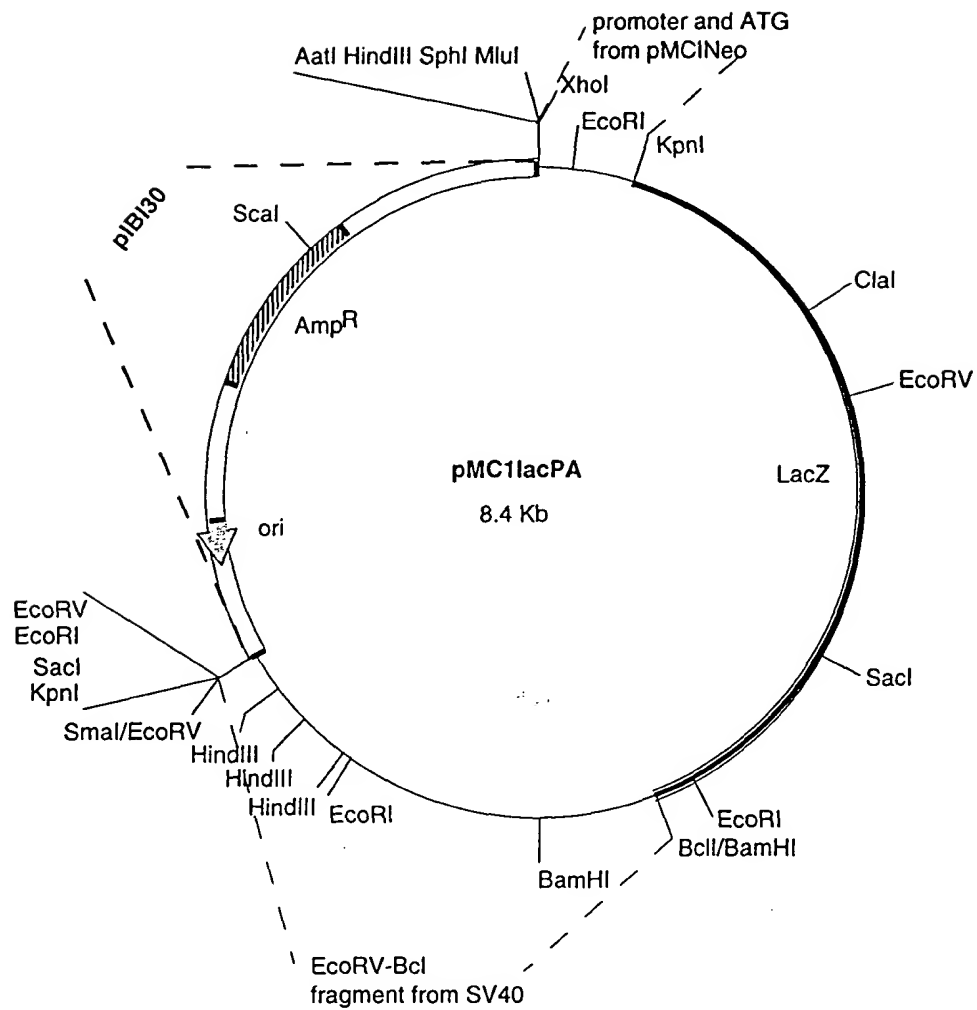
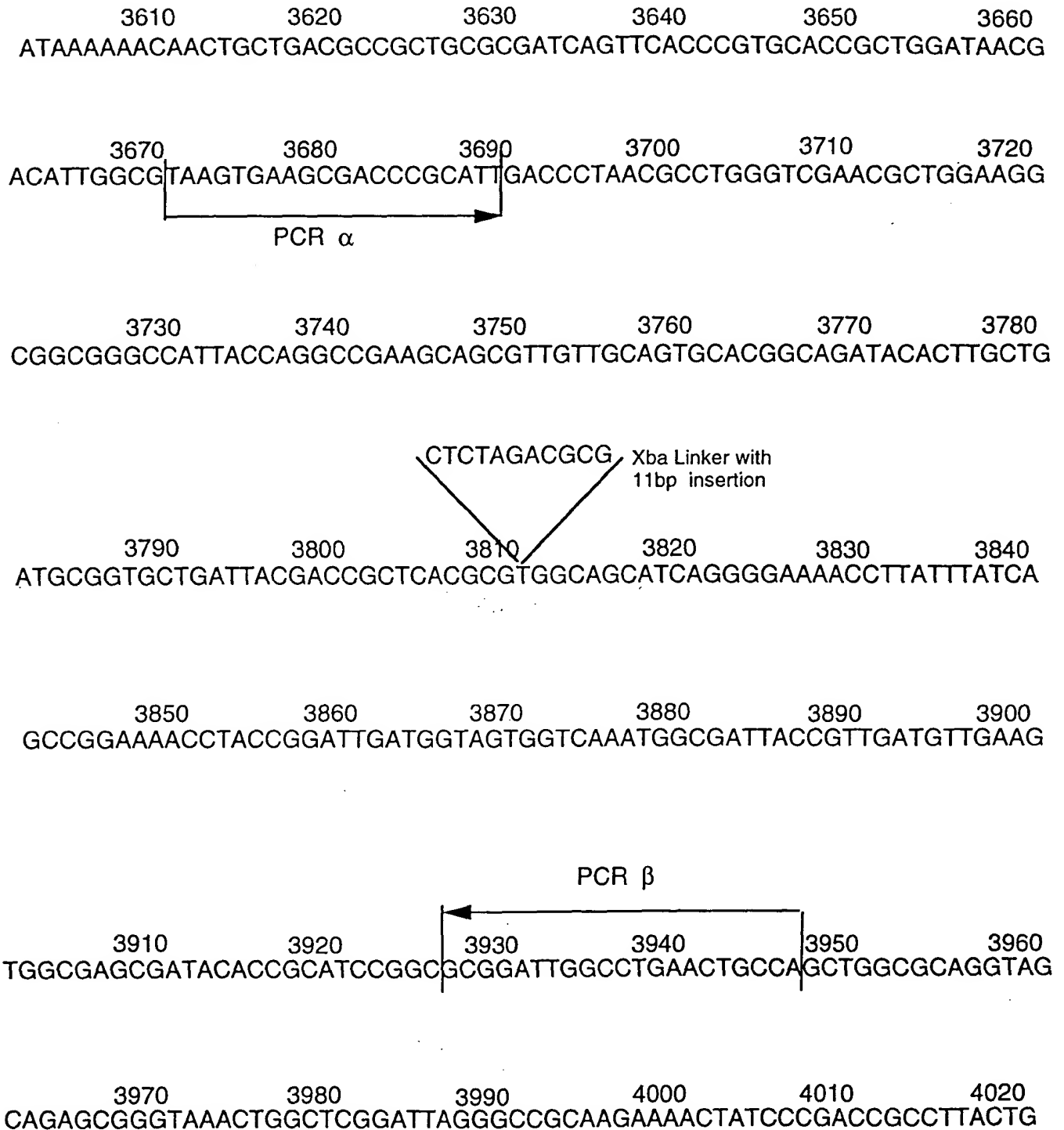


FIGURE 4

Figure 5



09027160.080901

TEST FOR ALTERATION OF AN INSERTION MUTATION IN THE *lacZ*
(β -GALACTOSIDASE) GENE OF EUKARYOTIC EXPRESSION VECTOR

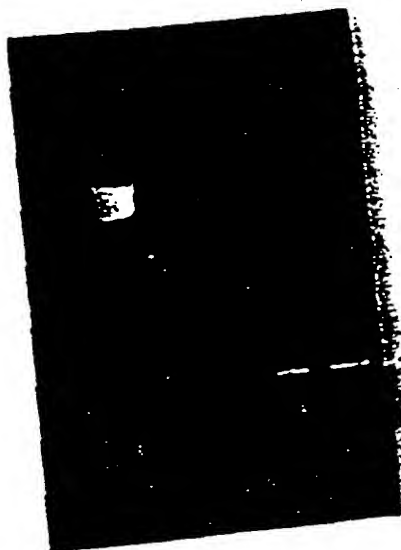
Experimental Sample	Injected Plasmid, 276-mer DNA and RecA Protein		Number of Injected Surviving Cells	Number of Surviving Cells Scoring Blue	Surviving Cells Scoring Blue (%)
1	pSV- β -gal	-276-mer - RecA	168	21	12.5
2	pMC1lacpa	- 276-mer - RecA	98	9	9.2
3	pMC1lacXpa	- 276-mer - RecA	173	0	0
4	pMC1lacXpa	+ 276-mer - RecA	103	0	0
5	pMC1lacXpa	+ 276-mer + RecA	168	6	3.6

Figure 6

09927150-080901

09927150.00901

M 1 2 3



687 bp

Figure 7A

Control (Σ CF)
T Σ CF Microinjected
T Σ CF P-L

Figure 7B



687 bp

FO6080" 09T 2660

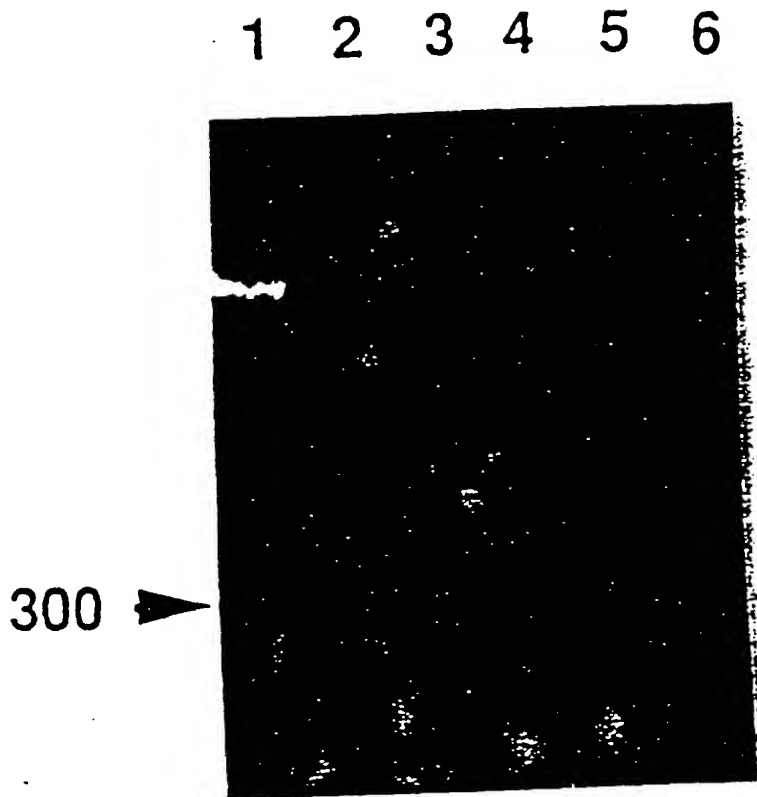


Figure
8A

1 2 3 4 5

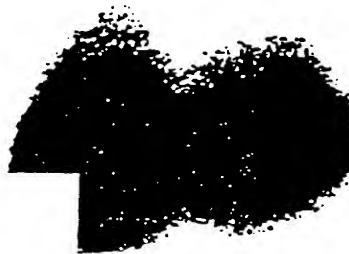


Figure
8B

FO6080" 09T/2660

299

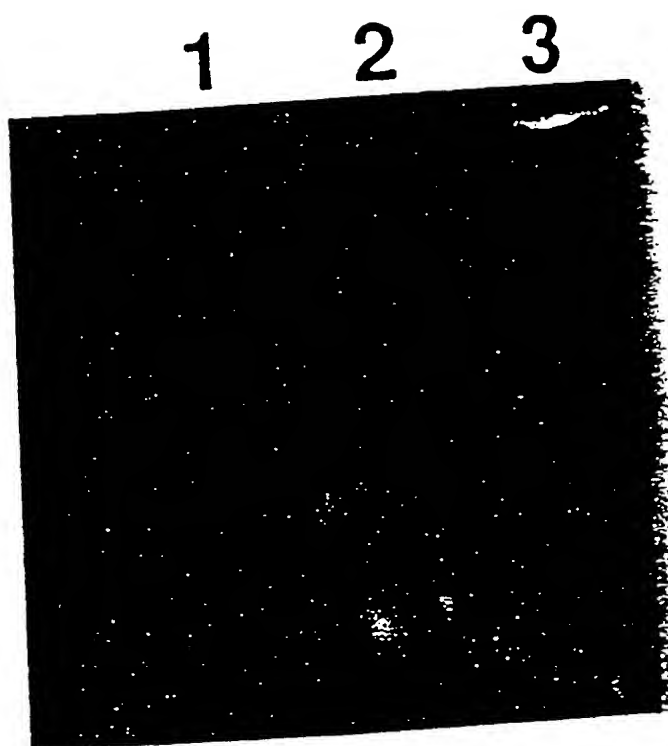


Figure
9

Scheme for recombination assay

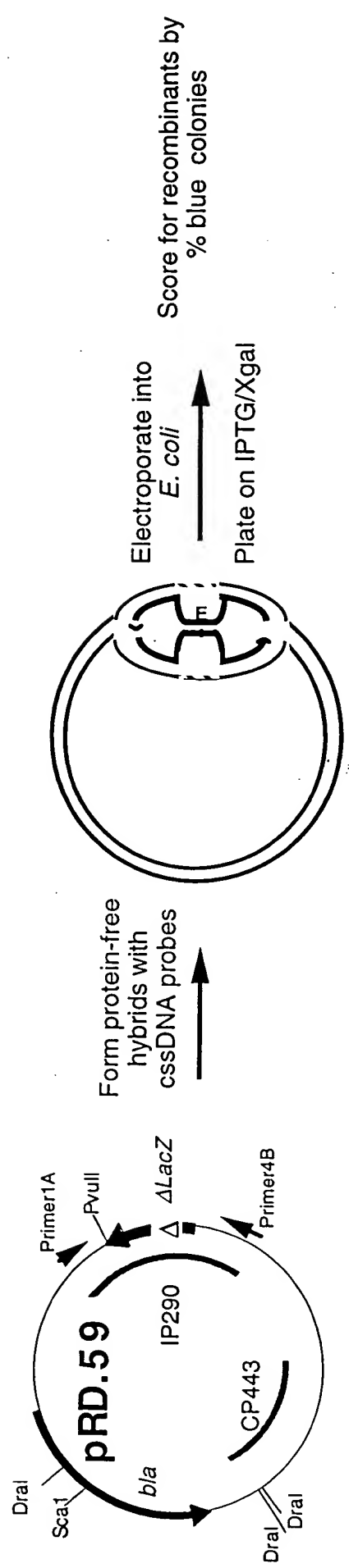


Figure 10

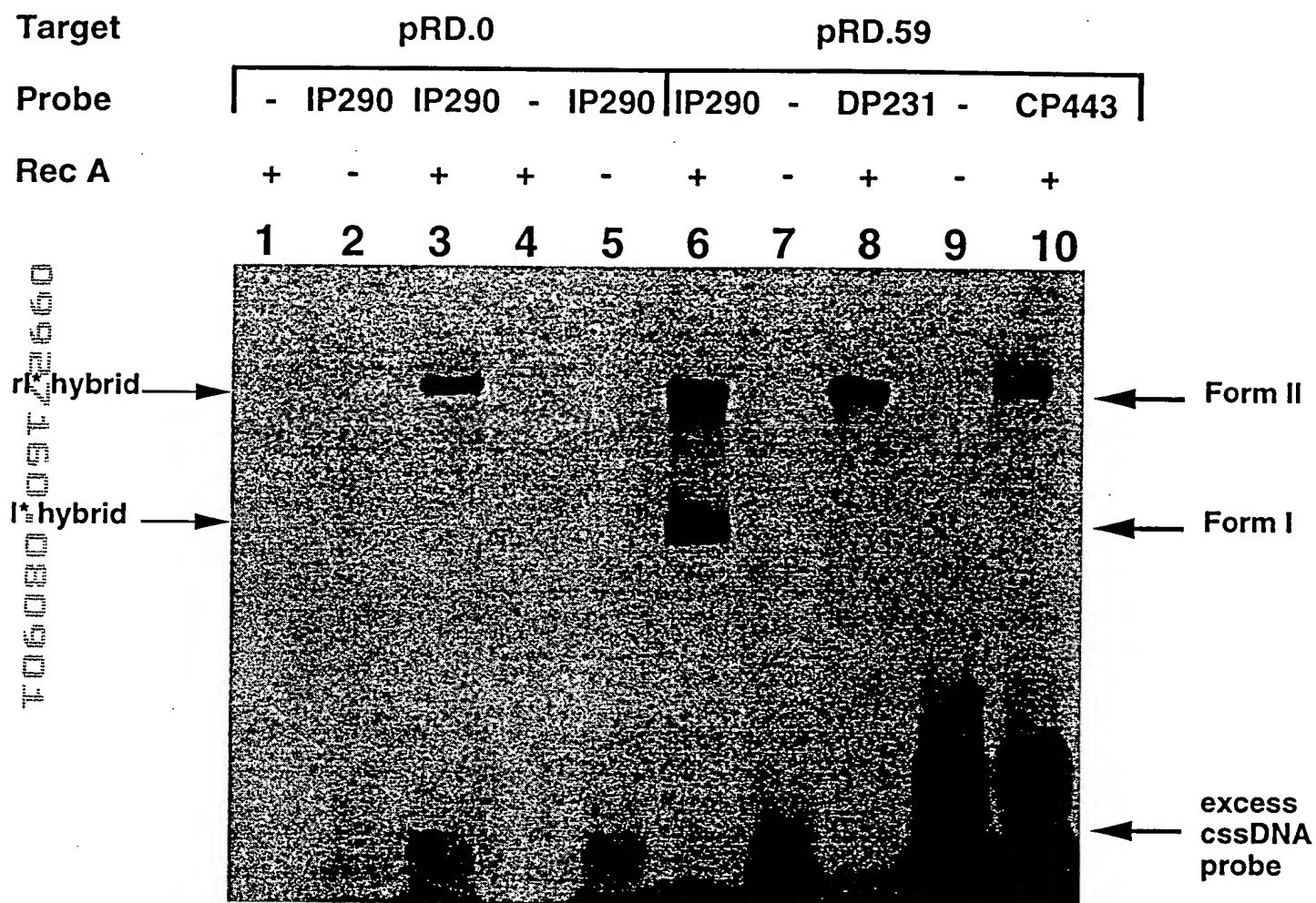


FIGURE 11

cssDNA Probe:Target Hybrids Enhance Homologous Recombination

Target Probe	RecA coating	Host	%Recombinant / total colonies
pRD.59 -	+	RecA+	0
pRD.59 -	+	RecA -	0
pRD.59 IP290	-	RecA+	0
IP290	-	RecA -	0
pRD.59 IP290	+	RecA+	3
IP290	+	RecA -	0
pRD.59 DP290	-	RecA+	0
DP290	-	RecA -	0
pRD.59 DP290	+	RecA+	0
DP290	+	RecA -	0
pRD.59 CP443	-	RecA+	0
CP443	-	RecA -	0
pRD.59 CP443	+	RecA+	0
CP443	+	RecA -	0

Figure 12

Three-strand hybrids

Certain regions of DNA probe or target strands are unpaired

No Internal Homology Clamp

**Internal Homology Clamp
formed by cssDNA probe**

**Internal Homology Clamp/
formed by dsDNA target**

Figure 13

Figure 14A

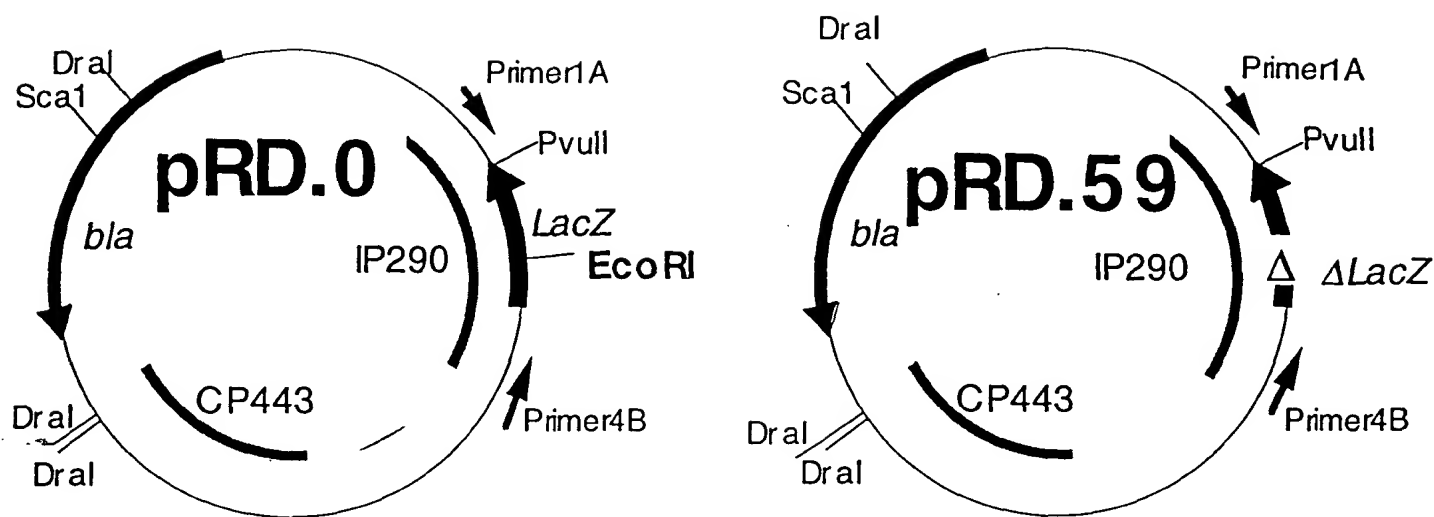
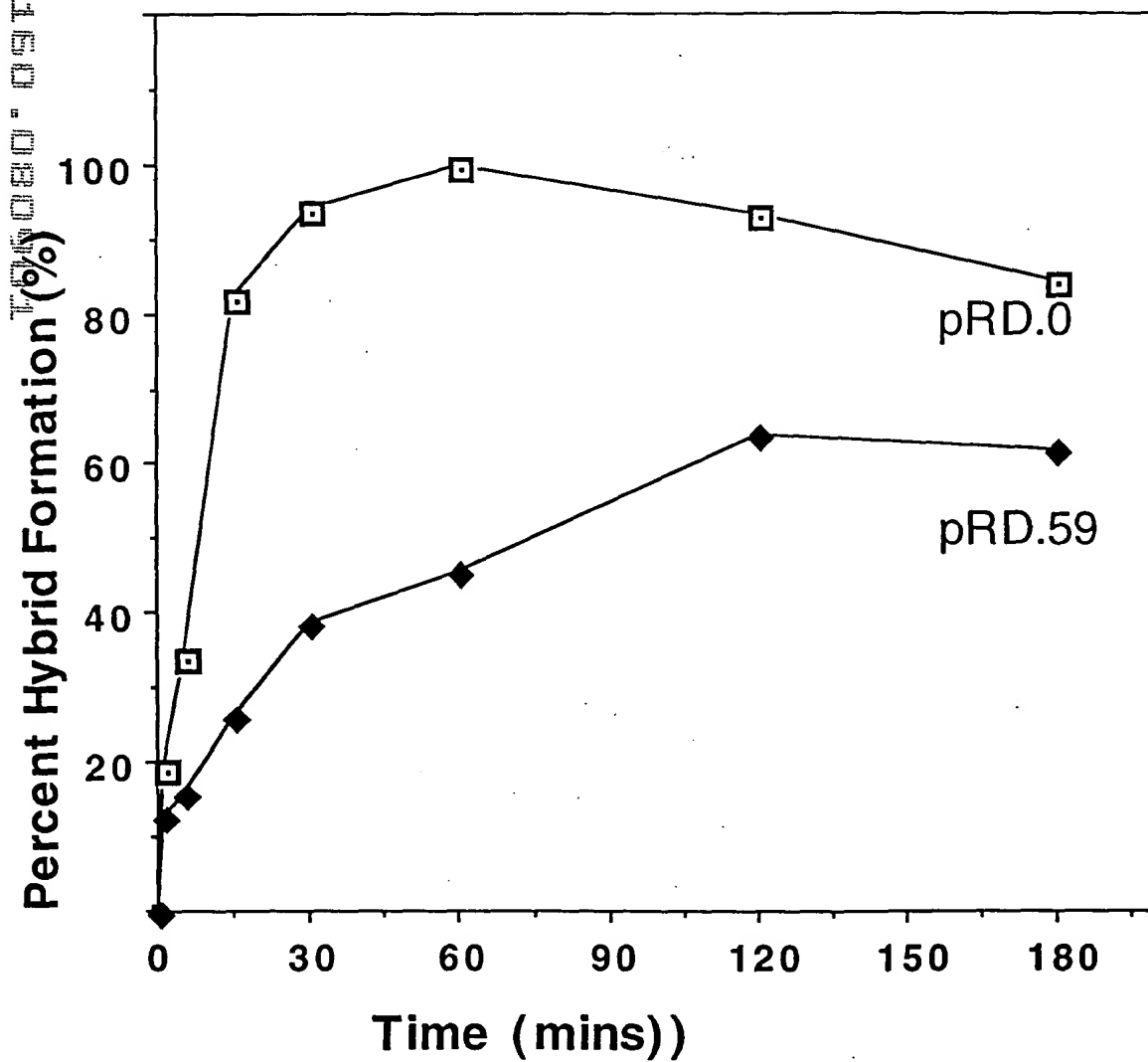


Figure 14B



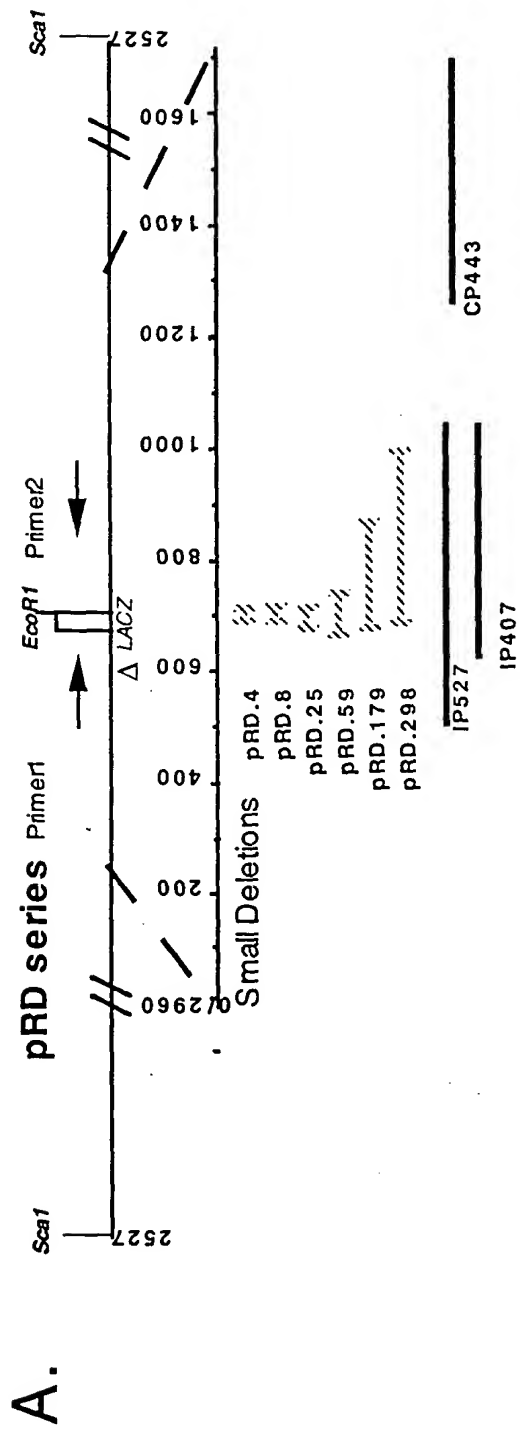


Figure 15A

Figure15B

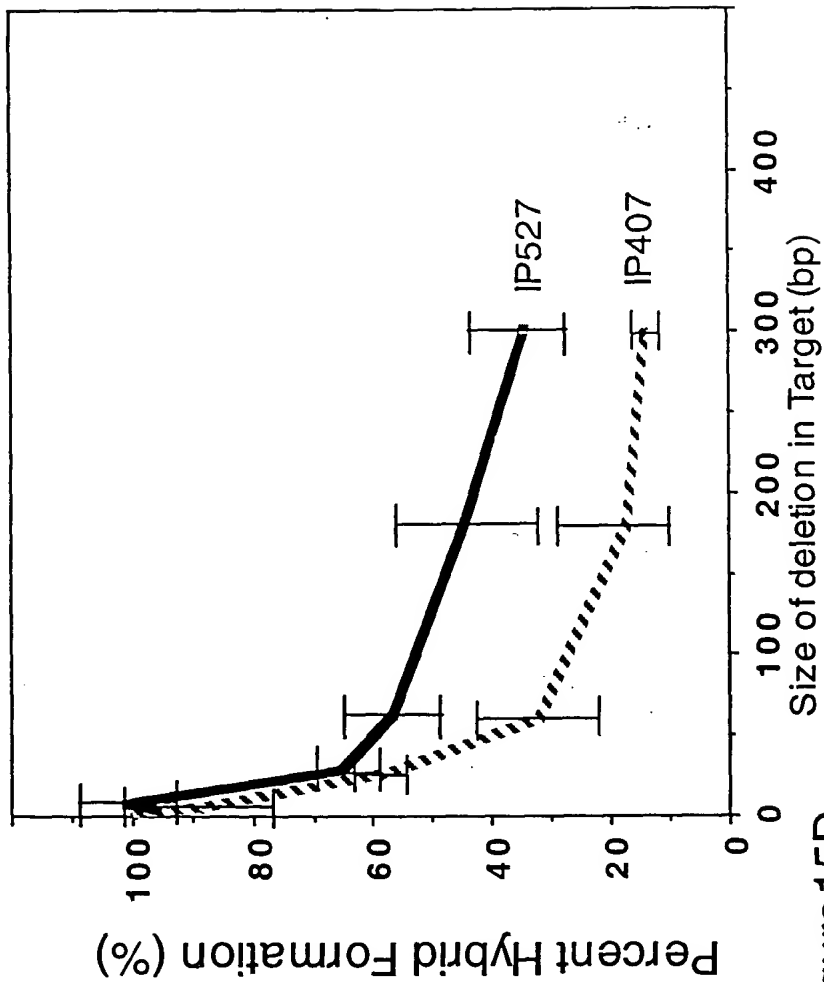


Figure15D

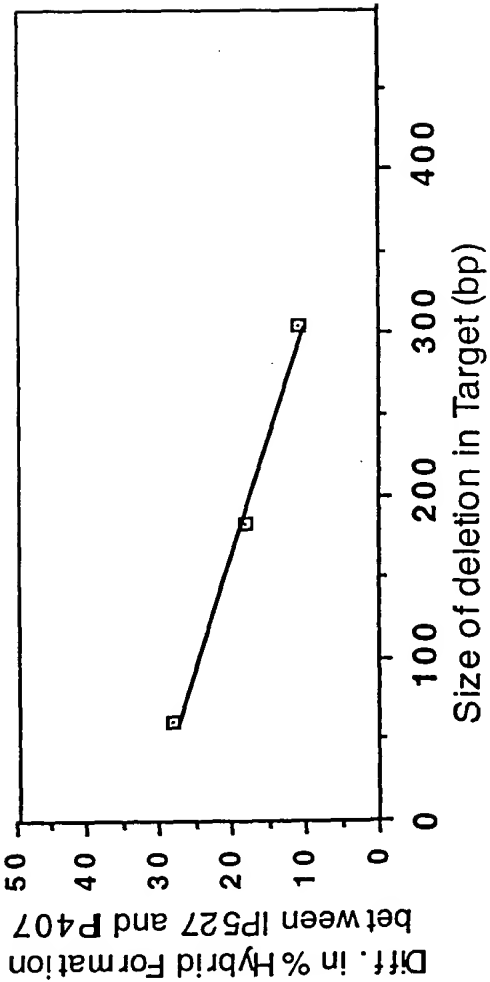
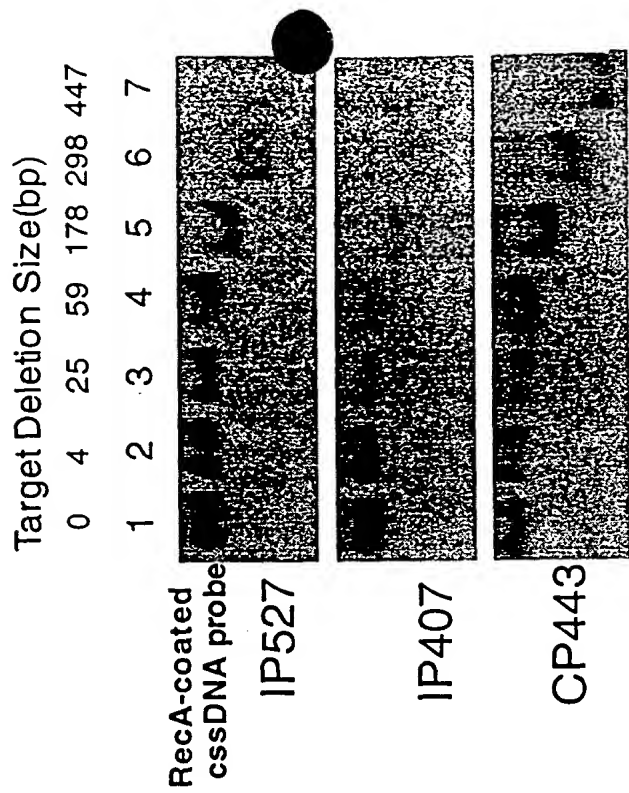


Figure15C



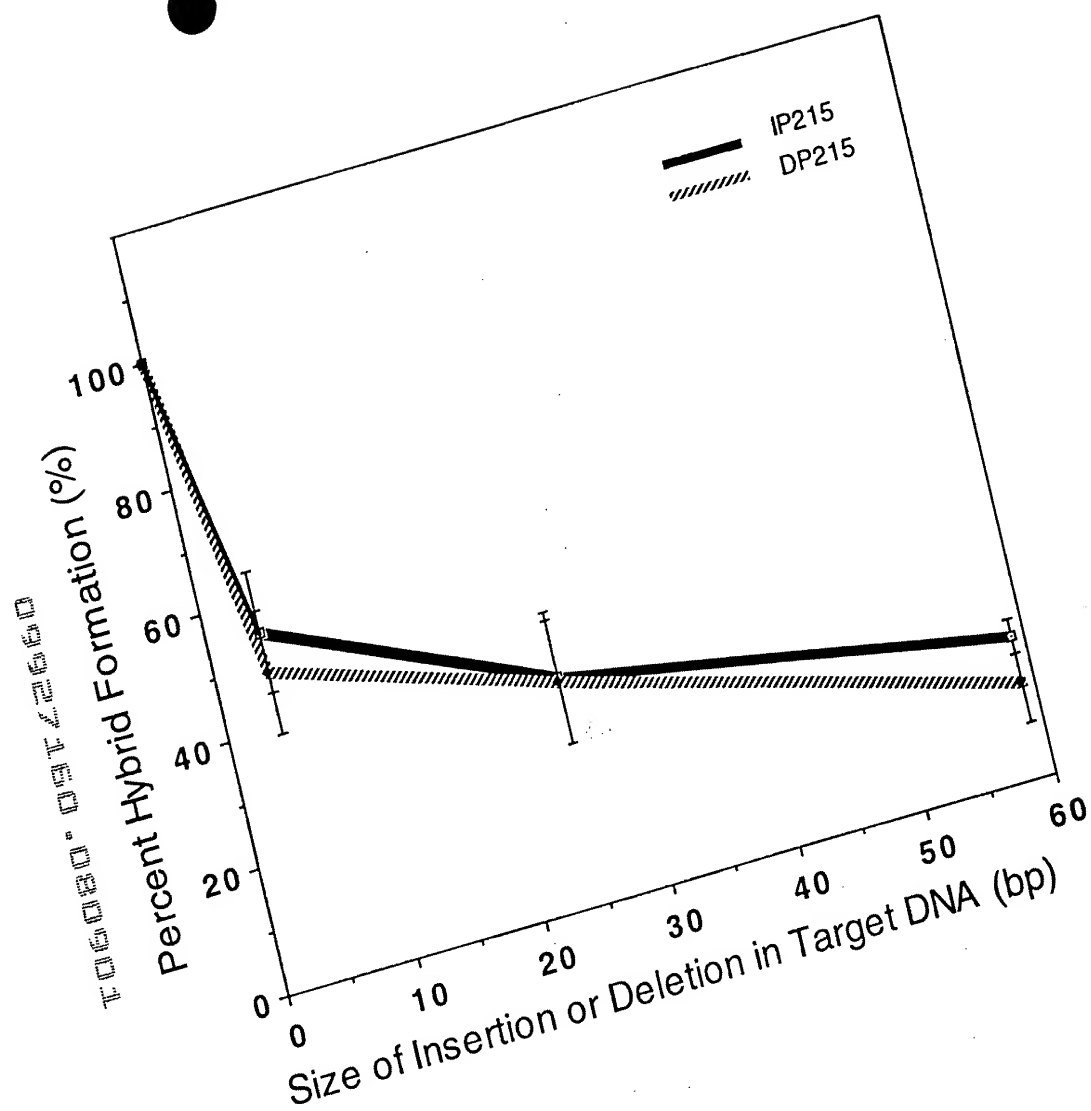


Figure 16

Probe	P1246	CP443
	pRD.0	pRD.0
	pRD.448	pRD.448
	pRD.453	pRD.453
	pRD.559	pRD.559
	pRD.967	pRD.967

Target

FormIII Marker
 pRD.0
 pRD.448/453
 pRD.559
 pRD.967

Excess probe
 Excess probe

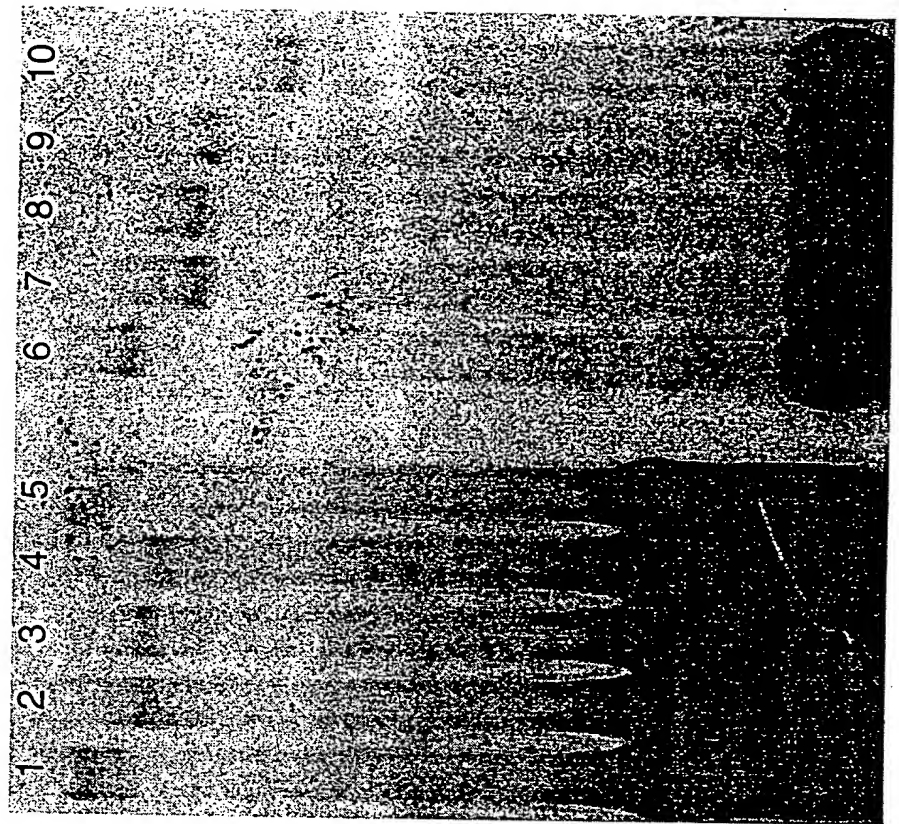


Figure 17B

TARGET DNA	AMT. HOMOL. (bp)	RELATIVE HYBRIDIZATION
pRD.0	1246	1.0
pRD.448	798	0.8
pRD.453	793	0.8
pRD.559	687	0.8
pRD.967	279	0.3

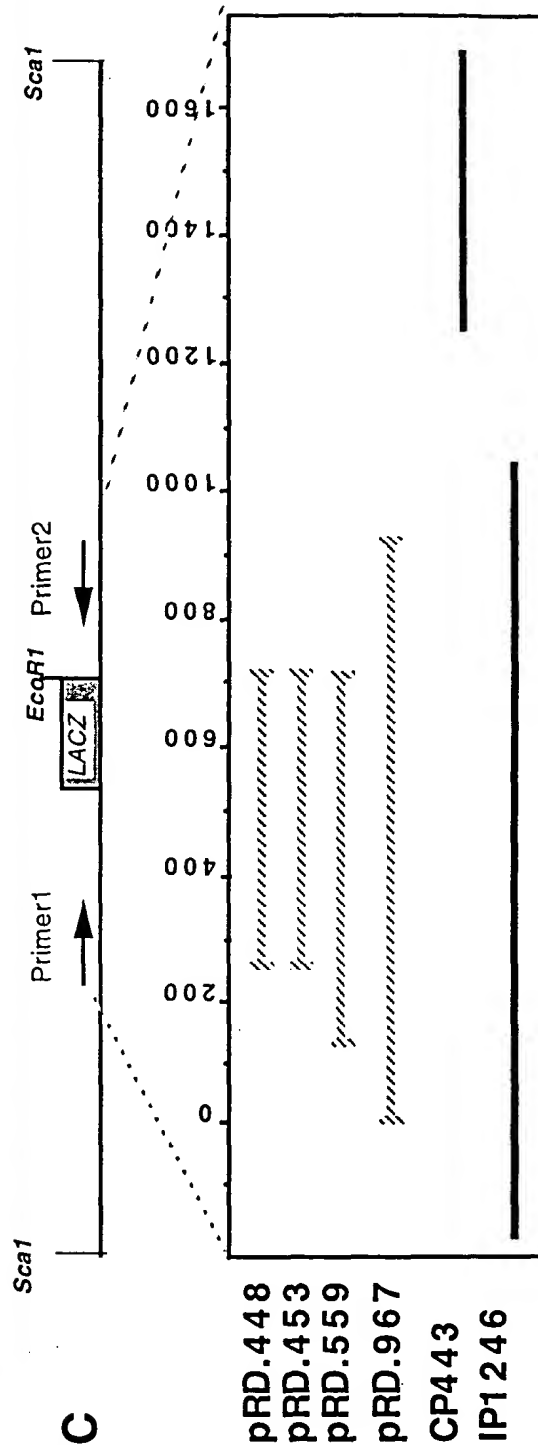


Figure 17C

Figure 18

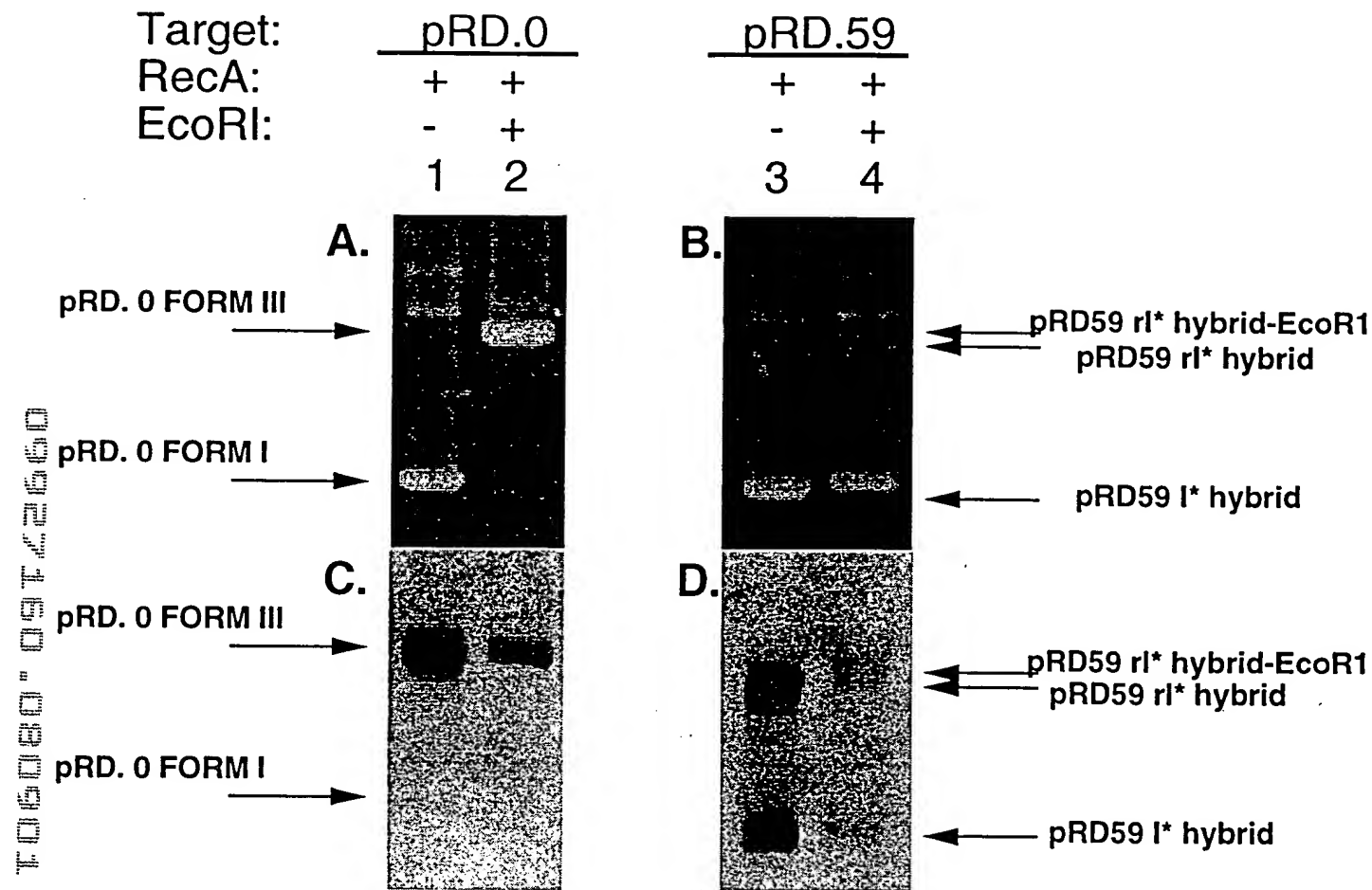
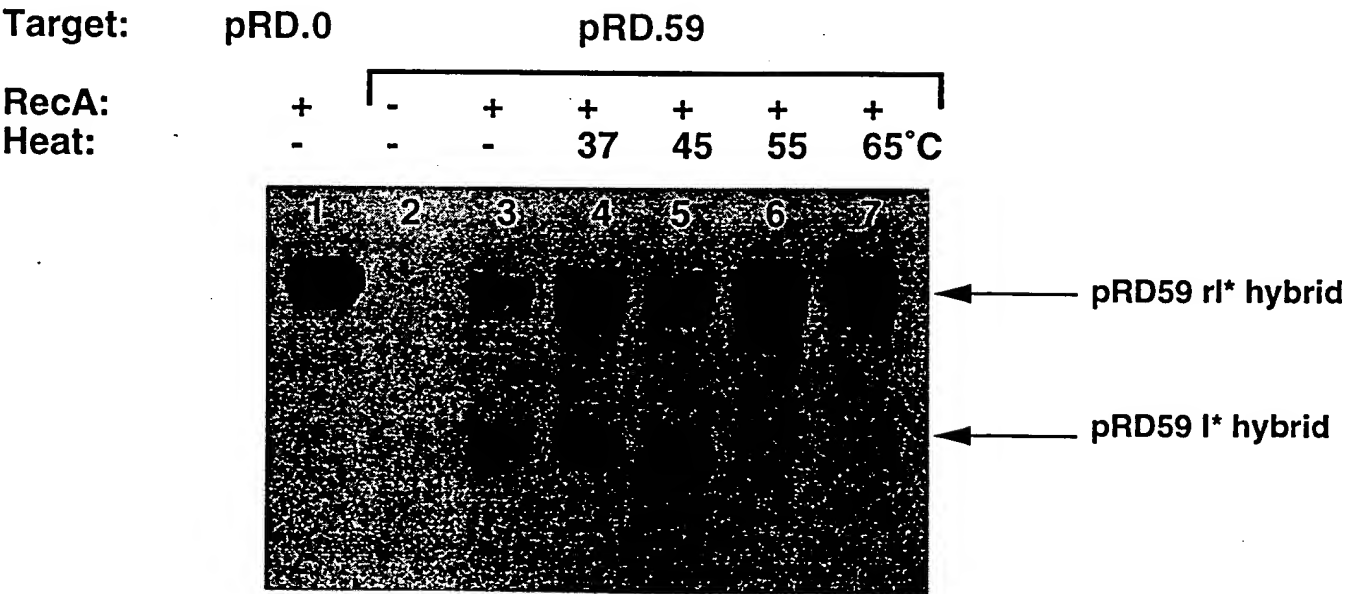
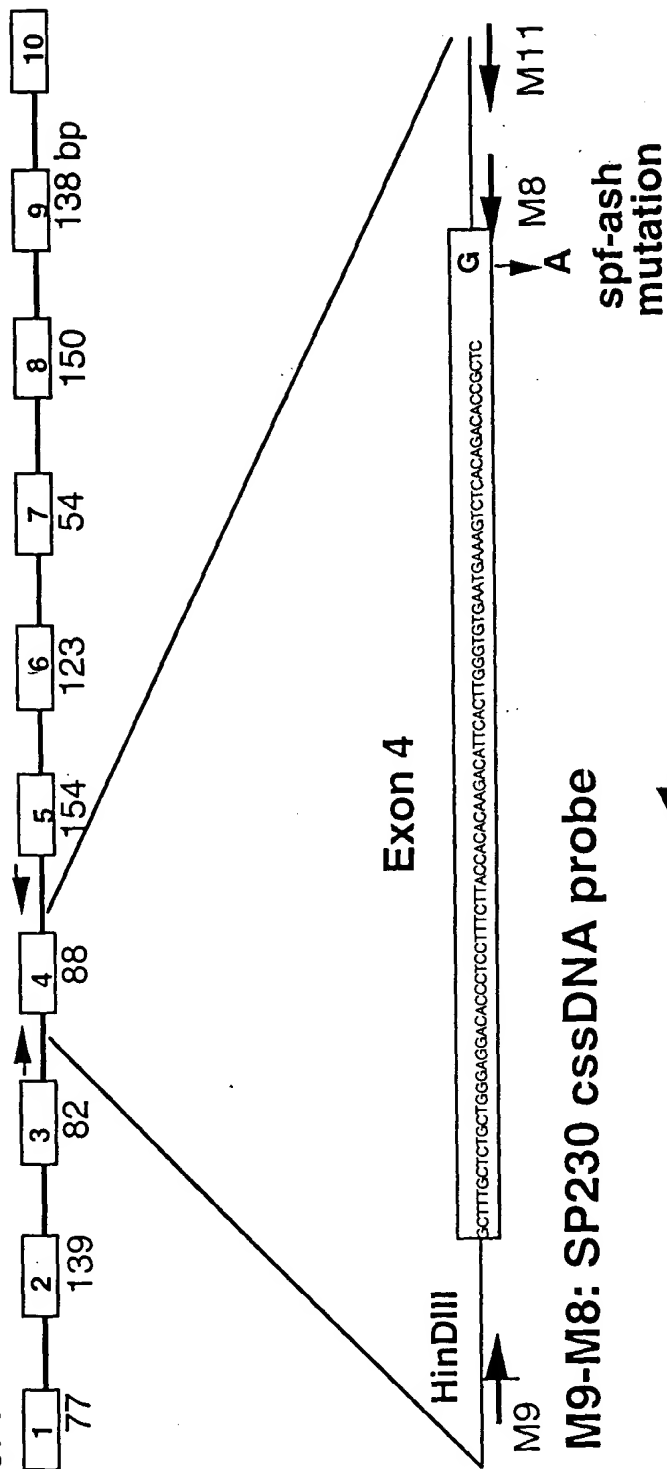


Figure 19



Mouse Ornithine Transcarbamylase Gene

Figure 20A



M9-M8: SP230 cssDNA probe

Figure 20B

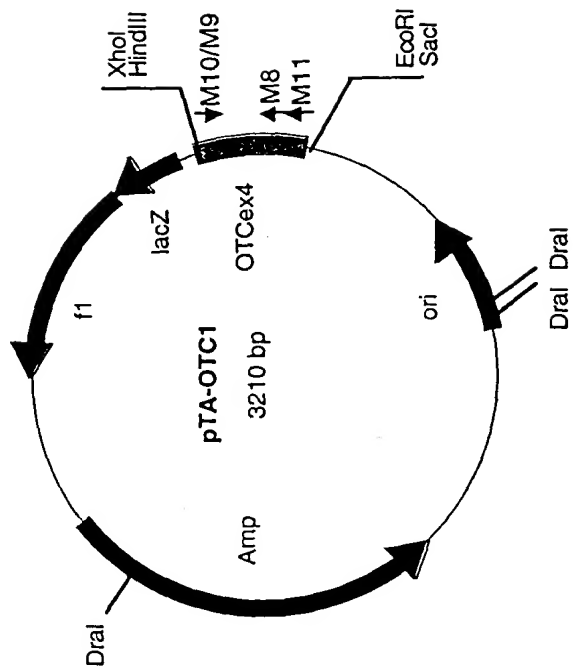


Figure 21

OTC exon4 DNA sequence determination

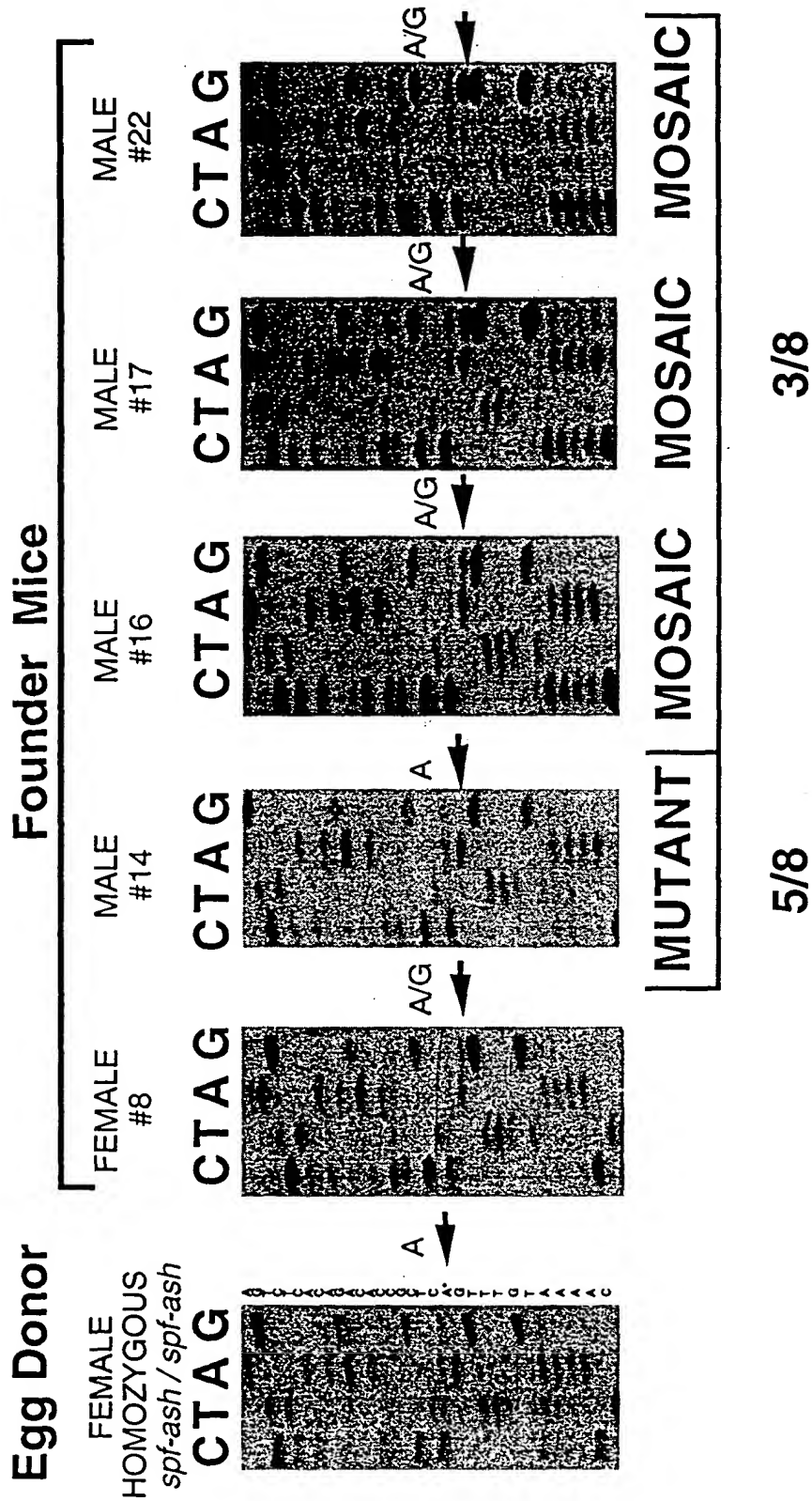


Figure 22 Germline Transmission of EHR Corrected OTC⁺ Allele

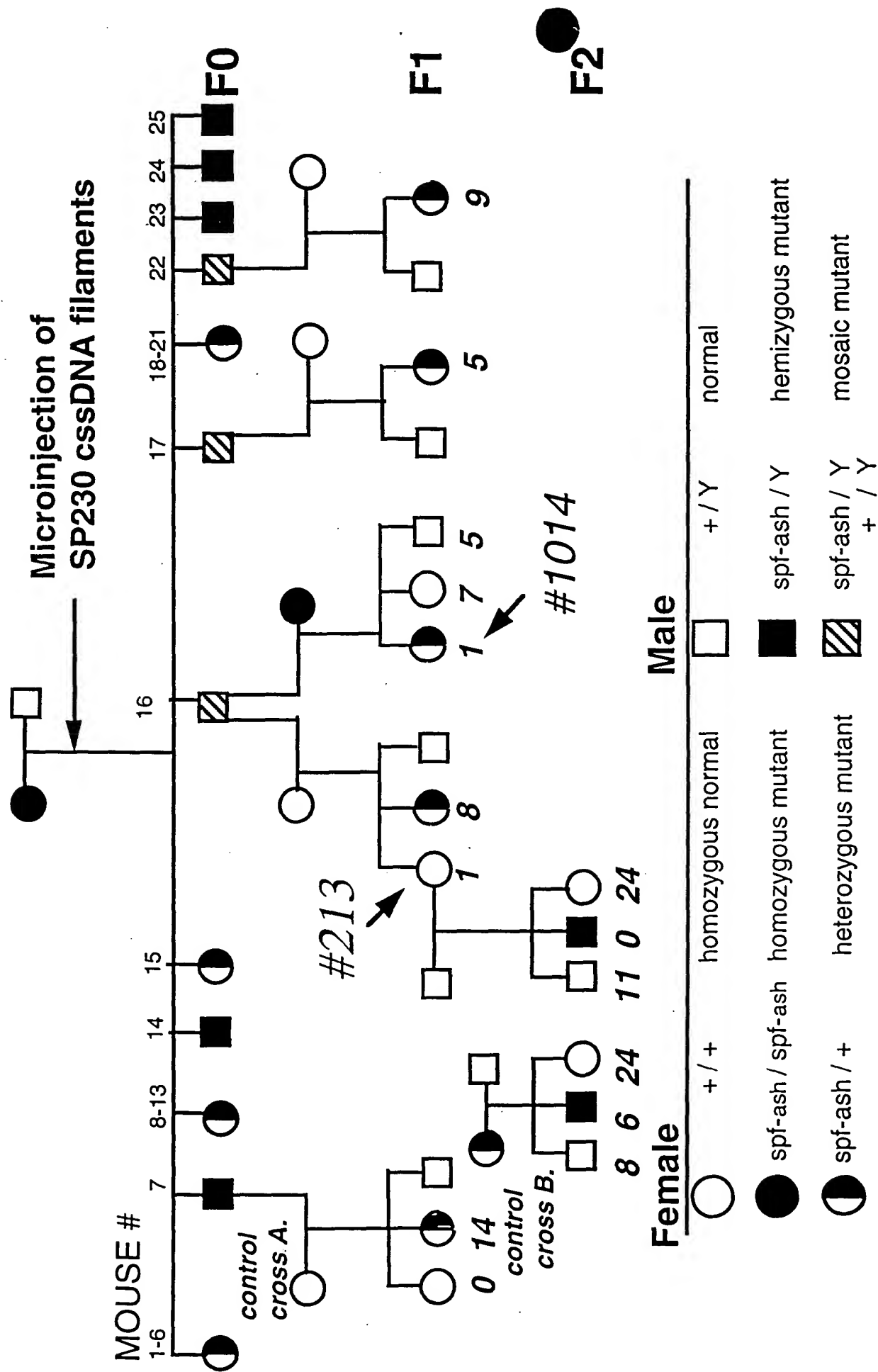


FIGURE 23

Figure 23

Germline Transmission of Corrected Allele of F0 Male #16



Homozygous
spf-ash/spf-ash
female parent

Mutant F1
Male Pup1



Mutant F1
Male Pup2



Mutant F1
Female Pup3



Mutant F1
Male Pup5



Mutant F1
Female Pup7



Normal ★
F1 Female
Pup1014

